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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/385,014	08/27/99	SHINOZAKI	N P8075-9014

MM02/0912  
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EXAMINER
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LE, D

ART UNIT	PAPER NUMBER
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2816

DATE MAILED:

09/12/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trad marks**

# Office Action Summary

Application No.  
09/385,014

Applicant(s)  
SHINOZAKI

Examiner  
DINH LE

Group Art Unit  
2816



☐ Responsive to communication(s) filed on \_\_\_\_\_

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-20 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☒ The proposed drawing correction, filed on Aug 27, 1999 is ☒ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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## **DETAILED ACTION**

### ***Oath/Declaration***

The declaration is acceptable.

### ***Drawings***

The drawings are approved.

### ***Specification***

The specification has been checked to the extent necessary to determine the presence of all possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections***

***Claim Rejections - 35 USC § 112***

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Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction or clarification is required.

In claim 1, the recitation "the amount" on line 11 lacks antecedent basis. The recitation "current" on line 11 is indefinite because it is not related back to the "current" on line 7. The same is true for claim 6.

In claim 6, the recitation "the current" on line 9 lacks antecedent basis.

The remaining claims are depending from the above rejected claims and therefore also considered indefinite.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harris et al (US Pat. 5,475,323).

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The Harris et al. (Harris) reference discloses in Figure 25 a differential amplifier circuit comprising all of the limitations of the present invention but does not disclose that the input terminal (+, -) are connected to a reference voltage and an external signal, respectively, as called for in the claims. However, since the circuit of Harris has the same structure as the claimed circuit, selecting the condition for the input signals, e.g., a variable input signal and a fixed reference input to operate the circuit as a comparator is considered to be a matter of a design expedient for an engineer dependent upon a particular environment or the application in which the circuit of Harris is to be used. A skilled artisan would have been obvious to apply an external signal and a fixed reference input voltage to the input terminals of Harris for purpose of operating the circuit as a threshold comparator.

Claims 16-19 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Fernandez et al. (US Pat. 5,448,200).

The Fernandez et al. (Fernandez) reference discloses in Figure 5 a differential amplifier circuit (3) comprising transistors (41, 42, 44) and inverter (43) but does not disclose that one input terminal receives an external signal as called for in the claims. However, since the circuit of Fernandez has the same structure as the claimed circuit, selecting the condition for the input signal, e.g., an external signal to operate the circuit as a comparator is considered to be a matter of a design expedient for an engineer dependent upon a particular environment or the application in which the circuit of Fernandez is to be used. A skilled artisan would have been obvious to

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supply an external signal to an input terminal of Fernandez for the purpose of providing a threshold comparator.

***Allowable Subject Matter***

Claims 6-15 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action.

Claim 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The claims would be allowable because the prior art references do not disclose a plurality of complementary signal generating circuits and processing circuits, a seventh transistor, an eighth transistor, and a second inverter.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dinh Le whose telephone number is (703) 305-3790. The examiner can normally be reached on Monday to Friday from 7:00 A.M. to 5:00 P.M..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876 or E-mail: Timmony. Callahan@USPTO.gov. The fax phone number for this Group is (703) 308-7725.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



DINH LE  
Primary Examiner  
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September 7, 2000